(19) World Intellectual Property Organization International Bureau



10/553730

(43) International Publication Date 28 October 2004 (28.10.2004)

PCT

(10) International Publication Number WO 2004/092735 A2

(51) International Patent Classification7:

G01N 33/573

(74) Agent: GRUBB, Philip; Novartis AG, Corporate Intellectuel Property, CH-4002 Basel (CH).

(21) International Application Number:

PCT/EP2004/004052

(22) International Filing Date: 16 April 2004 (16.04.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/463,935

18 April 2003 (18.04.2003) U

(71) Applicant (for all designated States except AT, US): NO-VARTIS AG [CH/CH]; Lichtstrasse 35, CH-4056 Basel (CH).

- (71) Applicant (for AT only): NOVARTIS PHARMA GMBH [AT/AT]; Brunner Strasse 59, A-1230 Vienna (AT).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): DAOUTI, Sherif [US/US]; 137 Berkshire Road, Hasbrouck Heights, NJ 07604 (US). KUMAR, Chandrika Saidapet [US/US]; 31 Wilson Way North, West Windsor, NJ 08550 (US). LATARIO, Brian, Jude [US/US]; 495 Martins Pond Road, Groton, MA 01450 (US).

- - GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

 without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHODS AND COMPOSITIONS TARGETING TYROSINE KINASES FOR THE DIAGNOSIS AND TREATMENT OF OSTEOARTHRITIS

(57) Abstract: The invention discloses that members of a subfamily of receptor tyrosine kinases comprising TYRO3, Axl, cMer and ligands thereof, such as GAS6 are suitable targets for the development of new therapeutics to treat, prevent or ameliorate OA. The invention also relates to methods to treat and/or ameliorate OA and pharmaceutical compositions therefor comprising modulators with inhibitory effect on the expression or activity of members of this subfamily of receptor tyrosine and related ligands. The invention also relates to a method to identify compounds with therapeutic usefulness to treat OA, comprising identifying compounds that can, e.g., inhibit activity and/or expression of these polypeptides.

